EJ-296 Scintillating Paint

Safety Data Sheet

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SECTION 1: IDENTIFICATION

Product Identifier

Product Name: EJ-296 Scintillating Paint

Product Form: Mixture

Intended Use of the Product

Radiation detection applications.

Name, Address, and Telephone of the Responsible Party

Company/Manufacturer:	Eljen Technology
Address:	1300 W. Broadway SWEETWATER, TEXAS 79556 USA
Phone:	(325) 235-4276
Fax:	(325) 235-0701
Website:	www.eljentechnology.com

Emergency Telephone Number

Emergency Number:	ChemTel (24 hours) United States, Canada, Puerto Rico, U.S. Virgin Islands: 1 (800) 255-3924 International: 1 (813) 248-0585 (Collect calls are accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US):

Flammable Liquid, Category 3	H226
Acute Toxicity, Inhalation, Category 4	H332
Skin Irritation, Category 2	H315
Eye Irritation, Category 2A	H319
STOT SE (Respiratory system), Category 3	H335
STOT RE (CNS, Liver, Kidney), Inhalation, Category 2	H373
Aspiration Hazard, Category 1	H304

Label Elements

GHS-US Labeling:

Hazard Pictograms (GHS-US):

Signal Word (GHS-US): Danger

Hazard Statements (GHS-US):

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

H335	May cause respiratory irritation.
H373	May cause damage to central nervous system, liver, and kidneys through prolonged or repeated exposure if inhaled.

Precautionary Statements (GHS-US):

P210	Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. – No smoking.
P233	Keep container tightly closed.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe vapors, mist, or spray.
P264	Wash hands, forearms, and other exposed areas thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, and eye protection.
P301 + P310	IF SWALLOWED: Immediately call a poison center or doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment (see section 4 on SDS).
P331	Do NOT induce vomiting.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media (see section 5 on SDS) to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with all local, regional, national, provincial, territorial and international regulations.

Hazards Not Otherwise Classified

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. This material or its emissions may defat skin. This product has been stabilized with butylated hydroxytoluene. Product will not undergo hazardous polymerization when stored under normal conditions.

Components With Unknown Acute Toxicity (GHS-US)

Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Hazardous Components:

Any hazardous components not listed below are not present in quantities requiring disclosure.

Name	Product Identifier	Concentration (%)	Classification (GHS-US)
Xylene	CAS# 1330-20-7	79.4%	Flam. Liq. 3, H226; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT-SE 3, H335; STOT-RE 2, H373; Asp. Tox. 1, H304

For full text of H-phrases, see section 16.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or a doctor if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Seek medical attention immediately if skin irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Immediately call a poison center or a doctor. Rinse mouth. Do NOT induce vomiting. Aspiration of solvent base into lungs by vomiting can lead to fatal complications. If spontaneous vomiting occurs, have victim lean forward with head positioned to avoid breathing in of vomit, rinse mouth, and have victim drink plenty of water. Never give anything by mouth to an unconscious person.

Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation: Harmful if inhaled. May cause respiratory irritation. May cause damage to central nervous system, liver, and kidneys through prolonged or repeated exposure if inhaled. High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Skin Contact: Causes skin irritation. Prolonged or repeated exposure to skin may cause defatting and dermatitis.

Eye Contact: Causes serious eye irritation.

Ingestion: May be fatal if swallowed and enters airways. Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None known.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If any of the above symptoms are present and persist, seek immediate medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Agents: Dry powder, alcohol-resistant foam, water in large amounts, carbon dioxide (CO_2). Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising from the Substance or Mixture

Fire Hazard: Flammable liquid and vapor. Refer to section 9 for flammability properties.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting instructions: Keep upwind. Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Do not allow run-off from firefighting to enter drains or water courses. Do not breathe fumes from fires or vapors from decomposition.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO_2). Toxic combustion products.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. No smoking. Handle in accordance with good industrial hygiene and safety practice.

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Ventilate area. Eliminate ignition sources. Stop leak if safe to do so.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Eliminate all ignition sources. Use only non-sparking tools. Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container for disposal. Do not take up in combustible material such as saw dust or cellulosic material. If spilled directly onto the ground, remove sufficient soil to ensure material is fully recovered. Contact competent authorities after a spill.

Reference to Other Sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash hands and forearms thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Air space/oxygen above the product is vital to keep inhibitors active. Follow proper grounding procedures to avoid static electricity. Use explosion-proof electrical, lighting, ventilating equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store locked up. Keep in fireproof place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or appropriate advisory agency.

Components with Workplace Control Parameters:

Xylene (CAS# 1330-20-7)	OSHA (PEL)	435 mg/m^3 (100 ppm) TWA
	ACGIH (TLV)	100 ppm TWA 150 ppm STEL
	ACGIH (BEI)	1500 mg/g Parameters: Methylhippuric acids Biological specimen: Urine

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Gas detectors should be used when flammable gases/vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Ensure all national/local regulations are observed.

Personal Protective Equipment

Eye/Face Protection: Wear chemical safety goggles.

Skin and Body Protection: Wear chemically resistant protective gloves. Wear suitable protective clothing made from chemically and fire resistant / flame retardant materials and fabrics.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance	: Clear, blue fluorescent liquid
Odor	: Aromatic
Odor Threshold	: No data available
pH	: No data available
Melting Point	: Not applicable
Boiling Point/Boiling Range	: 155 - 160°C (311 - 320°F)
Flash Point	: 31°C (87°F) (cc)
Evaporation Rate	: 9.5 (ether=1)
Flammability (solid, gas)	: No data available
Lower Flammability/Explosion Limit	: 1.1%
Upper Flammability/Explosion Limit	: 7%
Vapor Pressure	: 18 mm Hg at 37.7°C (100°F)
Vapor Density	: 3.7 at 20°C (air=1)
Relative Density	: 0.90 (water=1)
Solubility	: nil (in water)
Partition Coefficient (n-octanal/water)	: No data available
Auto-Ignition Temperature	: 464°C (867°F)
Decomposition Temperature	: No data available
Viscosity	: No data available
Percent Volatile by Volume	: 81%
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Static discharge could act as an ignition source.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

Possibility of Hazardous Reactions: This product has been stabilized with butylated hydroxytoluene. Product will not undergo hazardous polymerization when stored under normal conditions.

Conditions to Avoid: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO_2). Toxic combustion products. Acrid smoke and irritating fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity: Harmful if inhaled.

LD50/LC50 Values That Are Relevant for Classification:

EJ-296	ATE US (Inhalation)	6,297 ppmV/4h
Xylene (CAS# 1330-20-7)	LD50 (Oral – Rat)	3523 mg/kg
	LD50 (Dermal – Rabbit)	12,126 mg/kg
	LC50 (Inhalation – Rat)	5000 ppmV/4h

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Carcinogenicity: Not classified.

NTP	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.		
IARC	Xylene	CAS# 1330-20-7	Group 3
	2,6-Di-tert-butyl-p-cresol	CAS# 128-37-0	Group 3
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.		

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to central nervous system, liver, and kidneys through prolonged or repeated exposure if inhaled.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Symptoms/Injuries After Inhalation: Harmful if inhaled. May cause respiratory irritation. May cause damage to central nervous system, liver, and kidneys through prolonged or repeated exposure if inhaled. High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Symptoms/Injuries After Skin Contact: Causes skin irritation. Prolonged or repeated exposure to skin may cause defatting and dermatitis.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: May be fatal if swallowed and enters airways. Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None known.

Additional Information

The information presented here is to the best of our knowledge. The chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

Avoid release to the environment. Do not allow product to reach ground water, water course, or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Hazardous waste due to toxicity. Handle empty containers with care because residual vapors are flammable. Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT

UN Number	**:** 1993
UN Proper Shipping Name	**:** FLAMMABLE LIQUIDS, N.O.S. (Contains: Xylene)
Transport Hazard Class	**:** 3
Packing Group	**:** III
Label Codes	**:** 3
ERG Number	**:** 128
Marine Pollutant	**:** Yes

In Accordance with IMDG

UN Number	**:** 1993
UN Proper Shipping Name	**:** FLAMMABLE LIQUIDS, N.O.S. (Contains: Xylene)
Transport Hazard Class	**:** 3
Packing Group	**:** III
Label Codes	**:** 3
EmS-No. (Fire)	**:** F-E
EmS-No. (Spillage)	**:** S-E
Marine Pollutant	**:** Yes

In Accordance with IATA

UN Number : 1993
UN Proper Shipping Name : FLAMMABLE LIQUIDS, N.O.S. (Contains: Xylene)
Transport Hazard Class : 3
Packing Group : III
Label Codes : 3
ERG Code (IATA) : 3L

In Accordance with TDG

UN Number : 1993
UN Proper Shipping Name : FLAMMABLE LIQUIDS, N.O.S. (Contains: Xylene)
Transport Hazard Class : 3
Packing Group : III
Label Codes : 3
Marine Pollutant : Yes

SECTION 15: REGULATORY INFORMATION

Safety, Health, and Environmental Regulations Specific for the Substance or Mixture

US Federal Regulations

TSCA Inventory	The following components are listed: Xylene (CAS# 1330-20-7) Polyvinyltoluene (CAS# 9017-21-4) 2-(4-tert-Butylphenyl)-5-(4-biphenylyl)-1,3,4-oxadiazole (CAS# 15082-28-7) 2,5-Bis(5-tert-butyl-2-benzoxazolyl)thiophene (CAS# 7128-64-5) 2,6-Di-tert-butyl-p-cresol (CAS# 128-37-0)
SARA 313 Components	The following components are subject to reporting levels established by SARA Title III, Section 313: Xylene (CAS# 1330-20-7)
SARA 311/312 Hazards	Fire hazard, Acute health hazard

US State Regulations

Xylene (CAS# 1330-20-7)
U.S. – Massachusetts – Right to Know List U.S. – Pennsylvania – Right to Know List U.S. – New Jersey – Right to Know List
2-(4-tert-Butylphenyl)-5-(4-biphenylyl)-1,3,4-oxadiazole (CAS# 15082-28-7)
U.S. – Pennsylvania – Right to Know List U.S. – New Jersey – Right to Know List

SECTION 16: OTHER INFORMATION

Date of Issue: 5/13/2015
Revision Date: 2/17/2022
Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Abbreviations Used in Section 3:

Acute Tox. 4	Acute Toxicity, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2A	Serious Eye Damage/Eye Irritation, Category 2A
Flam. Liq. 3	Flammable Liquid, Category 3
Skin Irrit. 2	Skin Corrosion/Irritation, Category 2

STOT-RE 2	Specific Target Organ Toxicity, Repeated Exposure, Category 2
STOT-SE 3	Specific Target Organ Toxicity, Single Exposure, Category 3
H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to central nervous system, liver, and kidneys through prolonged or repeated exposure if inhaled.

Party Responsible for the Preparation of This Document:

Eljen Technology (325) 235-4276

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.